

## Abstract

A data receiving apparatus capable of minimizing data reception errors. In this apparatus, antenna 110 receives an RF signal and generates a received signal. 5 Radio processor 120 performs frequency conversion processing upon the received signal. Received signal memory 130 stores the received signal thus frequency converted. Propagation path estimator 140 estimates propagation path characteristics from the stored received 10 signal. SNR estimator 160 calculates the likelihood of the received signal using the received signal, an estimated value of the propagation path characteristics and a known signal stored in TSC memory 150. Viterbi equalizer 170 performs Viterbi equalization processing 15 upon the received signal by using an estimated value of the propagation path characteristics and thereby generates demodulated data. Soft decision data generator 180 multiplies the likelihood by the demodulated data and thereby generates soft decision data. 20 Channel code processor 190 performs channel decode processing upon the soft decision data.